

The following claims are presented for examination:

Claim 1 (currently amended): A router comprising:

an input port for receiving a succession of packets, wherein each of said packets comprises a destination address;

a plurality of output ports;

a switching fabric for interconnecting said input port to each of said plurality of output ports; and

a processor ~~or~~ for building a temporal model of the occurrence of said destination addresses at said input port, for populating said routing table cache based on said temporal model and at least one entry that is stored in a routing table, and for routing at least one of said packets from said input port to one of said output ports through said switching fabric based on said entry that is stored in said routing table cache;

wherein said temporal model is based on the autoregressive moving average of the occurrence of said destination addresses.

Claim 2 (canceled)

Claim 3 (currently amended): A method comprising:

receiving a temporal succession of packets at an input port, wherein each of said packets comprises a destination address;

generating a temporal model based on the occurrence of said destination addresses;

populating a routing table cache based on said temporal model and at least one entry that is stored in a routing table; and

forwarding at least one of said packets from said input port to one of a plurality of output ports based on said entry that is stored in said routing table cache;

wherein said temporal model is based on the autoregressive moving average of the occurrence of said destination addresses.

Claim 4 (canceled)